REMARKS

The above amendments are submitted within the three-month period for response to the Office Action mailed October 29, 2007. Reconsideration and allowance of all pending claims are respectfully requested.

In the subject Office Action, claims 1-2 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,556,990 to Lane in view of U.S. Patent No. 5,745,745 to Tada et al. In addition, claims 17-19 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lane and Tada, in further view of U.S. Patent No. 6,785,677 to Fritchman.

Applicant respectfully traverses the Examiner's rejections to the extent that they are maintained. Applicant has amended claim 1, canceled claim 2 and claims 17-19 and added new claim 21. Applicant respectfully submits that no new matter is being added by the above amendments, as the amendments are fully supported in the specification, drawings and claims as originally filed. Applicant also notes that the amendments made herein are being made only for facilitating expeditious prosecution of the aforementioned claimed subject matter. Applicant is not conceding in this application that the originally claimed subject matter is not patentable over the art cited by the Examiner, and Applicant respectfully reserves the right to pursue additional claims, including the subject matter encompassed by the amended and/or canceled claims, as presented prior to this Amendment, in one or more continuing applications.

Now turning to the subject Office Action, and specifically to the rejection of independent claim 1, this claim has been amended to incorporate the subject matter of claim 2, and claim 2 has been canceled without prejudice. Claim 1 therefore clarifies that the respective entry in a substring-specific index for a particular value in a table is indicative of a number of occurrences of the corresponding substring in the particular value. Thus, each entry specifies the number of times a substring is found in a particular value.

Claim 2 was rejected as being obvious in view of Lane and Tada. The Examiner argues that each of Lane and Tada disclose storing the number of occurrences of a corresponding substring in an entry of a substring-specific index, citing col. 5, line 61 to

col. 6, line 13 of Lane and col. 11, lines 49-66 of Tada. Neither passage cited by the Examiner, however, discloses or suggests this claimed feature.

Lane discloses, at col. 5, line 61 to col. 6, line 13, a system whereby a row is returned whenever a substring is found in the relevant field for that row, regardless of the number of occurrences of that substring in the field. Furthermore, in no data structure in Lane that could be analogized to an index is there found any count value representative of the number of occurrences of a substring. The numerical values shown in Fig. 2, e.g., in indices 305, 306 and 310, are all record identifiers, so the values of "002" and "003" found in some of the indices do not indicate a count of substrings, but rather merely point to records "002" and "003" respectively. In addition, it appears that col. 6, lines 7-12 actually teach away from the claimed invention, as the passage refers to using an additional mechanism to "ensure that duplicate sub-strings only return one row." It is apparent that Lane is not concerned with tracking the number of occurrences of a substring in a value, and in fact, is more concerned with hiding the fact that a substring may occur multiple times in a value to ensure that rows are not returned multiple times.

Tada discloses, at col. 11, lines 49-66, the creation of a character occurrence bitmap, but there is no disclosure in this passage that discusses tracking the number of occurrences of a substring in a particular field of a record. It is apparent from the remainder of the reference, e.g., col. 10, lines 12-21 and col. 2, line 51 to col. 3, line 19, that the character occurrence bitmap only specified whether a character is found in a field of a record, but not how many times that character is found. Tada's bitmap includes in one dimension each possible character, and in another dimension, each record in a search database, and each location in the bitmap has a single binary bit. Tada either sets or clears a bit at a location in the bitmap to indicate whether or not the character at that location is or is not found in the record for that location. The Examiner's attention is also directed to Fig. 2 of Tada, which illustrates a character occurrence bitmap that only supports binary bits, which are incapable of tracking the number of occurrences of a character.

As such, neither reference discloses or suggests a substring-specific index that identifies in an entry the number of occurrences of the corresponding substring in a particular value associated with the entry. The proposed combination therefore falls short of disclosing or suggesting each and every feature of claim 1, and claim 1 is therefore non-

obvious over Lane and Tada. Reconsideration and allowance of claim 1, and of withdrawn claims 3-15 which depend therefrom, are respectfully requested.

As a final matter, the Examiner will note that Applicant has added new claim 21, , which depends from claims 1, and which otherwise recites identical subject matter to withdrawn claims 8 and 9 (but without depending from claim 3, which the Examiner originally determined was directed to a patentably distinct invention.) Claim 21 recites that "each search substring has a length of two characters," and that "there are 100 search substrings representing, in character format, the numeric range from 00 to 99." Applicant respectfully submits that none of the prior art of record discloses or suggests this combination of features. Lane discloses multi-character substrings, but does not disclose numerical values for such characters. Tada does not disclose multi-character substrings, and does not appear to disclose characters representing numerical values. The combination of these references, moreover, does not suggest Applicant's unique method of partitioning a search space for character-based numerical values based upon 100 two digit character codes in the manner recited in claim 21. Applicant therefore respectfully submits that claim 21 is patentable over the prior art of record, so consideration and allowance of this claim is respectfully requested.

In summary, Applicant respectfully submits that all pending claims are novel and non-obvious over the prior art of record. Reconsideration and allowance of all pending claims are therefore respectfully requested. If the Examiner has any questions regarding the foregoing, or which might otherwise further this case onto allowance, the Examiner may contact the undersigned at (513) 241-2324. Moreover, if any other charges or credits are necessary to complete this communication, please apply them to Deposit Account 23 3000.

Respectfully submitted,

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Date

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